

We Claim As Our Invention:

1. A container comprising:

a wall defining an interior and an exterior of the container, at least a portion of the wall having a plurality of layers including:

a first layer comprising polypropylene; and

a second layer formed on the first layer, the second layer comprising polyethylene and having a fluorinated surface facing an interior of the container.

2. The container of claim 1, further comprising a third layer formed on the first layer opposite the second layer.

3. The container of claim 1, wherein the first layer comprises at least one of post-consumer recycled polypropylene, reground scrap, and color pigment.

4. The container of claim 1, wherein the first layer comprises at least about 95 percent by weight of the container.

5. The container of claim 2, wherein the first layer comprises at least about 85 percent by weight of the container, and wherein the third layer comprises about 10 percent by weight of the container.

6. The container of claim 2, wherein the first layer comprises at least about 75 percent by weight of the container, and wherein the third layer comprises about 20 percent by weight of the container.

7. The container of claim 5, wherein the third layer is a polypropylene gloss layer and the first layer comprises a color pigment.

8. The container of claim 6, wherein the third layer comprises color pigments.

9. The container of claim 1, wherein the second layer comprises less than about 5 percent by weight of the container.

10. The container of claim 1, wherein the container is blow molded.

11. The container of claim 1, wherein the container is thermoformed.

12. The container of claim 1, wherein the container is injection molded.

13. The container of claim 1, wherein the container is injection blow molded.

14. The container of claim 1, wherein the container is used with an aqueous product.

15. The container of claim 1, wherein the container is used with a comestible.

16. The container of claim 1, wherein the container is used with a chemical product.

17. The container of claim 1, further comprising at least one gas barrier layer formed between the first layer and the second layer.

18. The container of claim 17, further comprising a first adhesive layer and a second adhesive layer formed on opposite surfaces of and in intimate contact with the gas barrier layer.

19. The container of claim 18, wherein the gas barrier layer comprises at least one of EVOH and nylon.

20. The container of claim 2, further comprising at least one gas barrier layer formed between the first layer and the third layer.

21. The container of claim 20, further comprising a first adhesive layer and a second adhesive layer formed on opposite surfaces of and in intimate contact with the gas barrier layer.

22. The container of claim 21, wherein the gas barrier layer comprises at least one of EVOH and nylon.

23. A method of forming a container having a wall defining an interior and an exterior of the container, at least a portion of the wall having a plurality of layers, the method comprising the steps of:

forming a first layer of the wall, the first layer comprising polypropylene; and

forming a second layer of the wall on the first layer, the second layer comprising polyethylene and having a fluorinated surface toward an interior of the container.

24. The method of claim 23, further comprising the steps of:

forming a third layer on the first layer opposite the second layer.

25. The method of claim 23, further comprising the step of:

sealing a bottom portion of the container.

26. The method of claim 23, further comprising the step of:

fluorinating the second layer by exposing an interior facing surface of the second layer with a gas comprising fluorine.

27. The method of claim 26, wherein the gas comprises less than about 10% fluorine.

28. The method of claim 26, wherein the gas comprises greater than about 90% inert gas.

29. The method of claim 23, wherein the first layer comprises at least one of post-consumer recycled polypropylene and reground scrap comprising polypropylene.

30. The method of claim 23, wherein the first layer comprises at least about 95 percent by weight of the container.

31. The method of claim 24, wherein the first layer comprises at least about 85 percent by weight of the container, and wherein the third layer comprises about 10 percent by weight of the container.

32. The method of claim 24, wherein the first layer comprises at least about 75 percent by weight of the container, and wherein the third layer comprises about 20 percent by weight of the container.

33. The method of claim 24, wherein the third layer is a polypropylene gloss layer and the first layer contains a color pigment.

34. The method of claim 24, wherein the third layer comprises color pigments.

35. The method of claim 23, wherein the second layer comprises less than about 5 percent by weight of the container.

36. The method of claim 23, further comprising the steps of:
forming at least one gas barrier layer between the first layer and the second layer.

37. The method of claim 36, further comprising the steps of:
forming a first adhesive layer and a second adhesive layer on opposite surfaces of and
in intimate contact with the gas barrier layer.

38. The method of claim 23, wherein the gas barrier layer comprises at least one
of EVOH and nylon.

39. The method of claim 24, further comprising the steps of:
forming at least one gas barrier layer between the first layer and the third layer.

40. The method of claim 39, further comprising the steps of:
forming a first adhesive layer and a second adhesive layer on opposite surfaces of and
in intimate contact with the gas barrier layer.

41. The method of claim 39, wherein the gas barrier layer comprises at least one
of EVOH and nylon.

42. The method of claim 23, wherein the wall is formed by blow molding.

43. The method of claim 23, wherein the wall is formed by thermoforming.

44. The method of claim 23, wherein the wall is formed by injection molding.

45. The method of claim 23, wherein the wall is formed by injection blow molding.

46. The method of claim 26, wherein the interior facing surface of the second layer is fluorinated during the forming of the wall of the container.

47. The method of claim 26, wherein the interior facing surface of the second layer is fluorinated after the forming of the wall of the container.

48. The method of claim 23,
wherein the wall of the container is formed by blow molding; and
the method further comprising the steps of:
delivering a hollow parison into a blow mold, the hollow parison comprising
the first layer and the second layer;
administering a gas excluding fluorine into a central portion of the hollow
parison;
pinching-off the hollow parison between blow mold halves to form at least a
bottom seal of the container; and
after pinching-off the hollow parison, administering a gas comprising fluorine
into a central portion of the hollow parison.

49. The method of claim 23, further comprising the step of:
sealing a portion of the container.